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BEFORE THE ARIZONA CORPORATION COMMISSION

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AZ CORP COMMISSION  
DOCKET CONTROL

IN THE MATTER OF ENERGY EFFICIENCY ) DOCKET NO. E-00000U-15-0053  
STANDARDS REPORTS FOR 2015. )

ORIGINAL

Pursuant to A.A.C. R14-2-2409(B), Trico submits its status report regarding demand-side management progress report.

RESPECTFULLY SUBMITTED this 27<sup>th</sup> day of February, 2015.

TRICO ELECTRIC COOPERATIVE, INC.

By

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Original and 13 copies of the foregoing  
filed this 27<sup>th</sup> day of February 2015 with:

Docket Control  
Arizona Corporation Commission  
1200 West Washington Street  
Phoenix, Arizona 85007

Arizona Corporation Commission  
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FEB 27 2015

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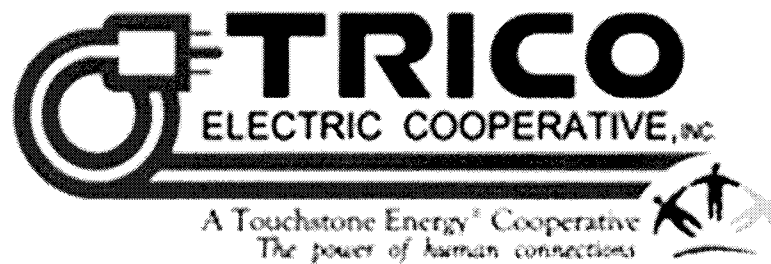
1 Copy of the foregoing hand-delivered/mailed  
2 this 21<sup>st</sup> day of February 2015 to:

3 Compliance Section,  
4 Utilities Division  
5 Arizona Corporation Commission  
6 1200 West Washington Street  
7 Phoenix, Arizona 85007

8 By

21095094





## **Annual DSM Progress Report**

**January - December 2014**

**Trico Electric Cooperative, Inc.  
Energy Efficiency Implementation Plan  
Annual Report  
March 1, 2015**

**BACKGROUND**

Pursuant to A.C.C. R14-2-2409, Trico Electric Cooperative, Inc. ("Trico") submits this annual compliance report for the period beginning January 1, 2014 through December 31, 2014. This report relates to Trico's Energy Efficiency ("EE") portfolio approved by the Arizona Corporation Commission (the "Commission") in Decision No. 73929 dated June 27, 2013.

**EXECUTIVE SUMMARY**

Trico's approved EE portfolio under Decision No. 73929 consists of the following:

- A. Conservation Workshop Program
- B. Classroom Connections
- C. Operation Cool Shade
- D. Pima County Weatherization

Trico's Annual Report reflects information for all programs approved under Decision 73929.

The programs contained within Trico's EE portfolio are supported with surcharge dollars collected from Trico's Commissioned-approved DSM Adjustor.

**REQUIRED ANNUAL REPORTING REQUIREMENTS**

Pursuant to A.C.C. R14-2-2409, by March 1 of each year, Trico shall submit to the Commission, in a Commission established docket for that year, a DSM progress report providing information for each of Trico's Commission-approved DSM programs and including at least the following:

- A. An analysis of Trico's progress towards meeting the annual energy efficiency standard;
- B. A list of Trico's current Commission-approved DSM programs and measures, organized by customer segment;
- C. A description of the findings from any research projects completed during the previous year;

- D. The following information for each Commission-approved DSM program or DSM measure:
1. A brief description of the programs;
  2. Goals, objectives and savings targets;
  3. The level of customer participation during the previous year;
  4. The costs incurred during the previous year, disaggregated by type of cost, such as administrative costs, rebates, and monitoring costs;
  5. A description and the results of evaluation and monitoring activities during the previous year;
  6. Savings realized in kW, kWh, therms and Btus, as appropriate;
  7. The environmental savings realized, including emissions and water savings;
  8. Incremental and net benefits, in dollars, of the programs;
  9. Performance-incentive calculations for the previous year;
  10. Problems encountered during the previous year and proposed solutions;
  11. A description of any modifications proposed for the following year; and
  12. Whether Trico proposes to terminate the DSM program or DSM measure and the proposed date of termination.

A summary of Trico's progress toward meeting the Annual Energy Efficiency Standard is provided in Table 1; a summary detailing program participation is provided in Table 2; a summary detailing all DSM expenses by program is provided in Table 3; a summary of energy savings is provided in Table 4; a summary of environmental savings by program are provided in Table 5; and summary of incremental benefits and net benefits, in dollars are provided in Table 6. Commission approved DSM programs and measures are attached in Appendix 1.

**Table 1 – Summary of Trico’s Progress toward Meeting the Annual Energy Efficiency Standard**

<b>ENERGY EFFICIENCY STANDARDS AND ACTUAL DSM ENERGY SAVINGS AS ESTABLISHED FOR TRICO IN DOCKET NO. E-01461A-11-0230 DECISION NO 73929 REPORTING PERIOD: TWELVE MONTHS ENDING DECEMBER 31, 2014</b>					
	<b>Approved Standard</b>		<b>Annual Results</b>		<b>Lifetime kWh Savings</b>
	<b>Capacity Savings kW</b>	<b>Annual kWh Savings</b>	<b>Capacity Savings kW</b>	<b>Annual kWh Savings</b>	
Conservation Workshops	4.50	17,494	1.31	5,095	15,285.96
Classroom Connection	23.38	90,959	24.03	93,486	186,971
Operation Cool Shade	132.45	91,620	225.00	155,641	1,556,405
Pima County Weatherization	2.33	8,898	1.75	6,670	200,100
Total	162.66	208,971	252.09	260,891	1,958,762
Load Control (Annual)*	10,360.61	3,781,624	10,360.61	3,781,624	3,781,624
Total	10,523.27	3,990,595	10,612.70	4,042,515	5,740,386
Actual 2014 kWh Sales		671,749,224		671,749,224	

\* Trico has interruptible rate tariffs which are not part of its EE Program funding, however this load control does contribute to Trico’s overall progress in meeting its EE goals.

**Table 2 - Summary of Participation by Program**

<b>SUMMARY OF PARTICIPATION BY PROGRAM</b> <b>January 2014 - December 2014</b>	
<b>DSM Program</b>	<b>Units/Participants</b>
Operation Cool Shade	1,500
Pima County Weatherization	5
<b>EE/DSM Programs Subtotal</b>	<b>1,505</b>
Conservation Workshops	30
Classroom Connections	925
<b>Support Programs Subtotal</b>	<b>955</b>
<b>Portfolio Totals</b>	<b>2,460</b>

**Table 3 – Summary of Expenses by Program**

<b>SUMMARY OF EXPENSES BY PROGRAM</b>			
<b>January 2014 - December 2014</b>			
<b>DSM Program</b>	<b>Allocated Program Budget</b>	<b>Labor Expenses</b>	<b>Program Expenses</b>
Operation Cool Shade	\$ 22,075.00	\$ 3,258.97	\$ 37,365.00
Pima County Weatherization	\$ 10,000.00	\$ 21.90	\$ 10,000.00
<b>EE/DSM Programs</b>	<b>\$ 32,075.00</b>	<b>\$ 3,280.87</b>	<b>\$ 47,365.00</b>
Conservation Workshops	\$ 2,824.00	\$ 1,113.10	\$ 152.65
Classroom Connections	\$ 7,214.00	\$ 1,735.68	\$ -
<b>Support Programs</b>	<b>\$ 10,038.00</b>	<b>\$ 2,848.78</b>	<b>\$ 152.65</b>
Program Development	\$ 12,866.00	N/A	\$ 12,526.74
<b>Subtotal Program Costs</b>	<b>\$ 54,979.00</b>	<b>\$ 6,129.65</b>	<b>\$ 60,044.39</b>

<b>SUMMARY OF TOTAL OPERATING COSTS</b>	
<b>January 2014 - December 2014</b>	
Total Labor Expenses	\$ 6,129.65
Total Program Expenses	\$ 47,517.65
<b>Program Operation Costs</b>	<b>\$ 53,647.30</b>
Program Development Expenses	\$ 12,526.74
<b>Total Operation Costs</b>	<b>\$ 66,174.04</b>

**Table 4 – Summary of Energy Savings by Program**

<b>SUMMARY OF KW AND KWH SAVINGS BY PROGRAM</b>			
<b>January 2014 - December 2014</b>			
<b>DSM Program</b>	<b>Units/Participants</b>	<b>kW Savings</b>	<b>kWh Savings</b>
Operation Cool Shade	1,500	225.00	155,641
Pima County Weatherization	5	1.75	6,670
<b>EE/DSM Programs</b>	<b>1,505</b>	<b>226.75</b>	<b>162,311</b>
Conservation Workshops	30	1.31	5,095
Classroom Connections	925	24.03	93,486
<b>Support Programs</b>	<b>955</b>	<b>25.34</b>	<b>98,581</b>
<b>Total Program Units/Savings</b>	<b>2,460</b>	<b>252.09</b>	<b>260,891</b>

**Table 5 – Summary of Environmental Savings by Program**

<b>SUMMARY OF ENVIRONMENTAL SAVINGS BY PROGRAM</b>					
<b>January 2014 - December 2014</b>					
<b>DSM Program</b>	<b>Lifetime kWh Savings</b>	<b>Lifetime Sox Reduction (lbs)</b>	<b>Lifetime Nox Reduction (lbs)</b>	<b>Lifetime CO2 Reduction (lbs)</b>	<b>Lifetime Water Reduction (gallons)</b>
Operation Cool Shade	1,556,405	5,323	8,093	344,775	716,040
Pima County Weatherization	200,100	684	1,041	368,984	92,058
<b>EE/DSM Programs</b>	<b>1,756,505</b>	<b>6,007</b>	<b>9,134</b>	<b>713,759</b>	<b>808,098</b>
Conservation Workshops	15,286	52	79	28,187	7,032
Classroom Connections	186,971	639	972	344,775	86,018
<b>Support Programs</b>	<b>202,257</b>	<b>692</b>	<b>1,052</b>	<b>372,962</b>	<b>93,050</b>
<b>Total Program Savings</b>	<b>1,958,762</b>	<b>6,699</b>	<b>10,186</b>	<b>1,086,722</b>	<b>901,148</b>

**Table 6 – Summary of Incremental Benefits and Net Benefits, in dollars**

<b>SOCIETAL BENEFITS</b> <b>REPORTING PERIOD: TWELVE MONTHS ENDING DECEMBER 31, 2014</b>				
	<b>Program Cost</b>	<b>Societal Benefits</b>	<b>Societal Costs</b>	<b>Net Benefits</b>
Conservation Workshops	\$ 823	\$ 897	\$ 762	\$ 135
Classroom Connection	\$ 7,414	\$ 11,183	\$ 6,865	\$ 4,318
Operation Cool Shade	\$ 37,500	\$ 236,564	\$ 74,983	\$ 161,582
Pima County Weatherization	\$ 7,500	\$ 7,380	\$ 6,944	\$ 435
Program Development	\$ 12,527		\$ 12,527	\$ (12,527)
<b>Total</b>	<b>\$ 65,764</b>	<b>\$ 256,024</b>	<b>\$ 102,081</b>	<b>\$ 153,943</b>

## Conservation Workshop Program

### Description

The Energy Conservation Workshop Program is an outreach program that provides homeowners ways to conserve energy and be more energy efficient.

Trico conducts energy efficiency presentations at meetings of homeowners associations, community groups and at Trico's headquarters. Trico actively seeks meetings and events where they can address Trico customers.

The presentation includes information on:

- Energy savings associated with installing CFLs
- Energy savings associated with installing programmable thermostats
- Benefits of weatherization and insulation
- Basic home maintenance and its effects on energy efficiency
- Benefits of purchasing Energy Star-rated appliances
- Distribution of home energy savings guides to further help them reduce their energy usage.

### Program Goals, Objectives and Savings Targets

This Program is designed to educate Trico's Residential and Commercial customers, in a group environment, on ways to save energy by providing them with techniques on how to better conserve energy through behavior modifications and other energy conservation measures.

Program Goals for 2014:

DSM Program	Units	kWh Savings	kW Savings	Program Cost
Conservation Workshops	103	17,494	4.50	\$2,824.26

### Levels of Participation

For the period January 1 – December 31, 2014:

DSM Program	Units/Participants
Conservation Workshop Program	30

### **Costs Incurred**

For the period January 1 – December 31, 2014:

DSM Program	Labor Expenses	Program Expenses
Conservation Workshops	\$1,113.10	\$152.65

### **Evaluation and Monitoring Activities and Results**

CH Guernsey completed an analysis of Trico's DSM/EE Programs during the formulation of Trico's proposed 2013-2014 EE Implementation Plan. The results of such analysis can be provided upon request.

### **kW, kWh, and Therm Savings**

DSM Program	kW Savings	kWh Savings
Conservation Workshops	1.31	5,095

### **Problems Encountered and Proposed Solutions**

Trico has experienced a decrease in participation in this program in 2014. Trico has actively continued to market the program through several marketing channels which include, but are not limited to, notifying customers on the back of their bills, newspaper advertising and posters in the Trico lobby. We plan to begin offering workshops during other Trico community events, such as Trico's Annual Meeting, to encourage additional attendance.

### **Program Modifications**

We plan to begin offering workshops during other Trico community events, such as Trico's Annual Meeting, to encourage additional attendance.

### **Programs or Measures Terminated**

Trico is not requesting to make any modifications to this program at this time.

## **Classroom Connections**

### **Description**

The Classroom Connection program educates elementary school students on the value and importance of energy efficiency and teaches them ways they can save energy in their own home.

Trico conducts an age-appropriate learning session during classroom time to teach the students ways to conserve energy and how to choose energy efficient appliances. Students are shown basic energy savings measures as well as the benefits of saving energy. An Energy Savings Information Sheet is distributed to all students. The students are also provided with an energy savings survey to fill out with their parents. All students that fill out and return the survey receive a "prize" that promotes energy efficiency as a reminder to continue to conserve.

### **Program Goals, Objectives and Savings Targets**

This Program is designed to educate Trico's younger customers about ways to conserve energy in their homes and to encourage them to share this information with their parents.

Program Goals for 2014:

<b>DSM Program</b>	<b>Units</b>	<b>kWh Savings</b>	<b>kW Savings</b>	<b>Program Cost</b>
Classroom Connections	900	90,959	23.38	\$7,214.04

### **Levels of Participation**

For the period January 1 – December 31, 2014:

<b>DSM Program</b>	<b>Units/Participants</b>
Classroom Connections	925

### **Costs Incurred**

For the period January 1 – December 31, 2014:

<b>DSM Program</b>	<b>Labor Expenses</b>	<b>Program Expenses</b>
Classroom Connections	\$1,735.68	\$0

### **Evaluation and Monitoring Activities and Results**

CH Guernsey completed an analysis of Trico's DSM/EE Programs during the formulation of Trico's proposed 2013-2014 EE Implementation Plan. The results of such analysis can be provided upon request.

### **kW, kWh, and Therm Savings**

DSM Program	kW Savings	kWh Savings
Classroom Connections	24.03	93,486

### **Problems Encountered and Proposed Solutions**

Trico has not encountered any problems with its Classroom Connections program. In fact, there has been an increased interest in the program, likely due to a more personalized approach in contacting the schools.

### **Program Modifications**

Trico is not requesting any program modifications at this time.

### **Programs or Measures Terminated**

Due to the continued interest in this program, Trico is not requesting to make any modifications to this program at this time.

## Operation Cool Shade

### Description

Trico's Operation Cool Shade program is an existing program, which promotes energy conservation through the planting of low-water use shade trees.

Trico offers the Operation Cool Shade Program in conjunction with Tucson Clean and Beautiful or "Trees for Tucson" who conducts the program management items associated with the program. Trico has responsibility for administering the purchase of the trees by the customers and ensuring eligibility to purchase trees. Tucson Clean and Beautiful has responsibility for the delivery of the trees to the customers, educating the customers about the appropriate locations to plant the trees and how to care for the trees. Tucson Clean and Beautiful also has responsibility for providing Trico with detailed reports tracking the amount of trees delivered to the customers and the energy savings to be expected for each tree sold detailed by the type of tree delivered.

### Program Goals, Objectives and Savings Targets

The purpose of this Program is to promote energy conservation and the environmental benefits associated with planting low water use trees.

Program Goals for 2014:

DSM Program	Units	kWh Savings	kW Savings	Program Cost
Operation Cool Shade	883	91,620	132.45	\$22,075.00

### Levels of Participation

For the period January 1 – December 31, 2014:

DSM Program	Units/Participants
Operation Cool Shade	1,500

### Costs Incurred

For the period January 1 – December 31, 2014:

DSM Program	Labor Expenses	Program Expenses
Operation Cool Shade	\$3,258.97	\$37,365.00

### **Evaluation and Monitoring Activities and Results**

CH Guernsey completed an analysis of Trico's DSM/EE Programs during the formulation of Trico's proposed 2013-2014 EE Implementation Plan. The results of such analysis can be provided upon request.

### **kW, kWh, and Therm Savings**

DSM Program	kW Savings	kWh Savings
Operation Cool Shade	225.00	155,641

### **Problems Encountered and Proposed Solutions**

Trico has not encountered any problems with its Operation Cool Shade program. Member interest has increased over the past year, resulting in Trico selling out of trees in July 2014, several months earlier than the previous year.

### **Program Modifications**

Trico is not requesting any program modifications at this time.

### **Programs or Measures Terminated**

Due to the continued interest in this program, Trico is not requesting to make any modifications to this program at this time.

## Pima County Weatherization

### Description

For Trico's 2013-2014 EE Plan, it plans to provide \$10,000 each year to the Pima County Weatherization program.

To qualify for the program, the applicant must contact Pima County for an application. Eligible applicants must have a household income less than 150 percent of the federal poverty level. Program participation is subject to funding availability.

This program includes Pima County representatives determining the work needed and installing weatherization measures on approved homes and structures, including:

- Caulking & weather-stripping
- Insulation (attic, wall, & duct)
- Water heater insulation & exposed pipe wrap
- Attic ventilation
- Sunscreens
- Paint roof & exposed ducts white
- Service evaporative coolers
- Replace evaporative coolers or motors with two-speed motors
- Plant trees on south/west exposures
- Installation of evaporative cooler thermostat
- Installation of low-flow shower heads

### Program Goals, Objectives and Savings Targets

The goal of this program is to improve energy efficiency in homes in the Trico service area by assisting low-income residents in reducing energy use and lowering their utility bills by implementing year-round weatherization measures. This program is provided at no cost to eligible customers.

Program Goals for 2014:

DSM Program	Units	kWh Savings	kW Savings	Program Cost
Pima County Weatherization	6.67	8,898	2.33	\$10,005.00

### **Levels of Participation**

For the period January 1 – December 31, 2014:

DSM Program	Units/Participants
Pima County Weatherization	5

### **Costs Incurred**

For the period January 1 – December 31, 2014:

DSM Program	Labor Expenses	Program Expenses
Pima County Weatherization	\$21.90	\$10,000.00

### **Evaluation and Monitoring Activities and Results**

CH Guernsey completed an analysis of Trico's DSM/EE Programs during the formulation of Trico's proposed 2013-2014 EE Implementation Plan. The results of such analysis can be provided upon request.

### **kW, kWh, and Therm Savings**

DSM Program	kW Savings	kWh Savings
Pima County Weatherization	1.75	6,670

### **Problems Encountered and Proposed Solutions**

Trico has not encountered any problems with its Pima County Weatherization program. Participation in the program decreased slightly from the previous year, likely due to the timing of projects being completed.

### **Program Modifications**

Trico is not requesting any program modifications at this time.

### **Programs or Measures Terminated**

Due to the continued interest in this program, Trico is not requesting to make any modifications to this program at this time.

## Appendix 1

### Commission Approved DSM Programs and Measures for 2014

DSM Program	Customer Segment	Approved Measures
Conservation Workshops	Residential	Energy Conservation Workshops
Classroom Connections	Residential	Classroom Presentations
Operation Cool Shade	Residential/Commercial	Shade Trees
Pima County Weatherization	Residential	Whole House Low Income Weatherization